

ARK-4170 Ruggedized System, w/Celeron 400, Phoebus -40~ +75° C

Startup Manual

Packing list

Before you begin installing your system, please make sure that the following materials have been shipped:

- 1 ARK-4170 unit
- 1 ARK-4170 user guide
- 1 User Notes of Phoebus Operation 1st ed
- 1 Registration and 1 year Warranty card Rev.A p/n: 2013000000
- 1 CD-ROM or disks for utility, drivers, and manual (in PDF format)
- 1 Wire 9P 20cm D-SUB to ATX Power p/n: 1700003932
- 1 Wire 9P 20cm D-SUB to AT Power p/n: 1700003933
- 1 Cable 6P-6P-6P 20cm PS/2 KB & Mouse 20cm p/n: 1700060202
- 4 COM ports cable p/n: 1701400181

Base System

ARK-4170Y-BJ0A1E

- Industrial 256MB SDRAM
- Windows CE 5.0 operating system support
- Windows CE 5.0 Pro Plus LICENSE
- End User License Agreement for Windows CE
- End User License Agreement for Windows CE

ARK-4170Y-AJ0A1E

- Industrial 512 MB SDRAM
- XPe operating system support
- Windows XPe LICENSE
- End User License Agreement for XPe

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Note 1: For detailed contents of the ARK-4170, please refer to the enclosed CD disk (in PDF format).

Note 2: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: www.adobe.com/Products/acrobat/readstep2.html(Acrobat is a trademark of Adobe).

For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

<http://www.advantech.com/eplatform>

For the phoebus profile data and if you want to know more about ruggedized products, please visit our website at:

<http://www.advantech.com/epc/RuggedizedSolutions/>

For technical support and service, please visit our support website at:

<http://www.advantech.com/support>

This manual is for the ARK-4170 series Rev. A1.

Part No. 2006K41700

1st Edition
Apr. 2007

Specifications

Standard SBC Functions

- **CPU:** Embedded Intel Celeron 400 MHz processor
- **System chipset:** VIA twister + VT82C686B
- **BIOS:** Award 256KB Flash BIOS, support Plug & Play
- **System memory:**

256 MB SDRAM for ARK-4170YBJ0A1E;

512 MB SDRAM for ARK-4170Y-AJ0A1E

- **Enhanced IDE interface:** Support one EIDE devices. BIOS auto-detect, PIO Mode3 or Mode4 transfer
- **WatchDog timer:** 63 scale, hardware reset and IRQ selection
- **Serial ports:** Two RS-232 ports
- **Parallel ports:** One parallel port, supports SPP/EPP/ECP code
- **PC/104 expansion:** ISA and PCI connector
- **Keyboard/Mouse connector:** Supports standard PC/AT keyboard and 1 PS/2 mouse
- **Power management:** Supports power saving modes including Normal/Standby/Suspend modes. APM 1.1 compliant
- **USB:** 2 USB 1.1 compliant ports
- **Battery:** Lithium 3V/196 mAh

Display

- **Chipset:** VIA VT8606
- **Memory size:** Shared memory architecture, up to 64 MB using system memory
- **Resolution:**
 - **CRT Modes:**
 - Up to 1280 x 1024 at 75 Hz
 - **LCD Modes:** (internal pinheads)
 - Up to 36-bit TFT

Ethernet interface

- **Chipset:** Intel 82551ER
- **Ethernet interface:** PCI 10/100 Mbps Ethernet. IEEE 802.3u protocol compatible
- **Connection:** 1 x RJ45

Onboard Flash

- 128 MB Flash onboard (IDE interface)_ARK-4170Y-BJ0A1E
- 1 GB Flash onboard (IDE interface)_ARK-4170Y-AJ0A1E

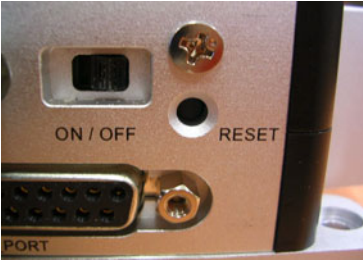
Mechanical and Environmental

- **Dimensions:** 164 mm x 170 mm x 49.2 mm
- **Weight:** 2.3 Kg (weight of total package)
- **Operating Temperature:** -40 ~ 75° C
- **Operating Humidity:** 0%~90% relative humidity, non-condensing
- **Power Supply Voltage:** AT/ATX +5V \pm 5%, +12 V \pm 5%
- **Input rating:** 5 V @ 5.5 A, 12 V @ 0.5A

Connectors

Attaching an AT or ATX power supply

Note: Before attaching the power supply, please double check the power switch is off.



Depending on the power supply type (AT/ATX), choose the relevant power cable. The cable needs to be plugged into the power supply, and the other connector needs to be plugged in to the DC_input connector of the Front Panel.



AT power cable: 1700003933



ATX power cable: 1700003932

Connecting the Display

The analog display has an RGB connector that plugs into the VGA connector of the Rear Panel.

Connecting the keyboard and Mouse

Using the 1700060202 cable in the package, plug it into the 6pin mini-dim connector on the Rear Panel.

Connecting other devices

Such as printer, Com ports, LAN, audio, etc, please refer to the user's manual on the CD for detail pin assignment information.

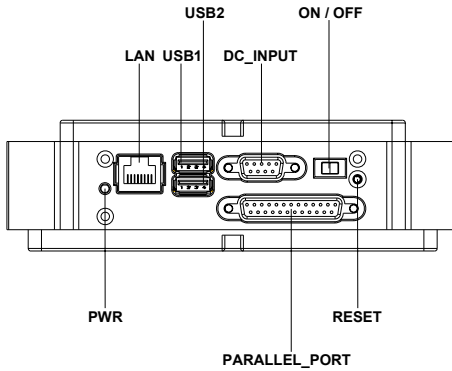
Powering On and Off

Make sure the power supply and the relative devices are plugged in to the right connectors, then move the switch to the on/off position.

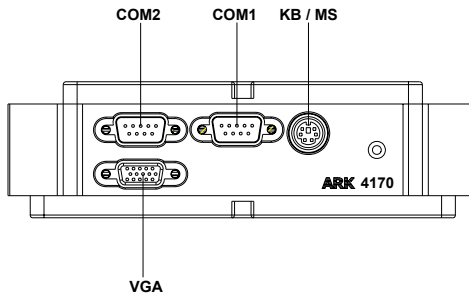


If you want to open the system to check anything, please refer to the user's manual for detailed information. Please note: our warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech.

Locating Connectors

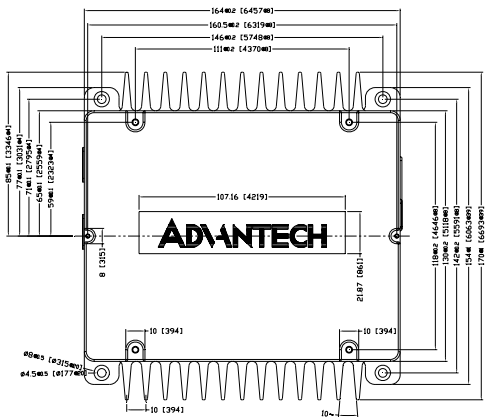


Front panel external I/O mechanical layout drawing

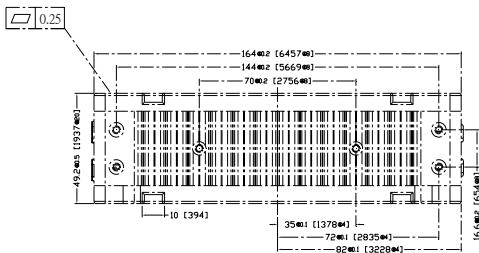


Rear panel external I/O mechanical layout drawing

Dimensions



Dimensions (component side)



Dimensions (solder side)